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ABSTRACT

This newsletter theme issue deals with summer program offerings for academically talented youth. It notes the benefits of summer programs and outlines factors to consider in choosing the most appropriate one. Several types of programs are then described, including talent search programs, young students programs, math programs, science programs, college credit programs, study abroad, and arts programs. Seven directories of summer opportunities are listed as sources of further information. An article on writing for publication is presented, focusing on finding a market for one's writing, and publishers that accept work by students are listed. Another article explores implications of the recent revisions to the Scholastic Aptitude Test (now the Scholastic Assessment Test). The regular feature, "College Review Series," presents a review of Johns Hopkins University, based on comments of 13 students enrolled there. The issue also contains creative works by youth, including an essay, a puzzle, and a poem. (JDD)

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VOLUME 1 • NUMBER 3

ImaGiNe...

Opportunities and Resources for Academically Talented Youth

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Spotlight On

Choosing Academic Summer Programs

January/February 1994

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Arlene W. Sullivan

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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When summer vacation arrives, talented students who are eager to keep learning can fill their days with experiences of all kinds that enhance knowledge.

Summer is the perfect time to take advantage of enrichment opportunities that aren't available—or that you don't have time for—during the school year. You may enjoy poring over a stack of recommended reading. Or learning a new computer language. Or researching local history while you travel with your family.

Another option is to attend an excellent academic summer program that's located on a college campus and balances accelerated coursework with recreation. If this idea appeals to you, your biggest problem may be narrowing down your choices. The many courses briefly described in this issue by no means exhaust your options, as you'll discover if you glance through any of the books recommended on page 13.

One benefit of programs like these is the friendships you'll make. Because those who attend share common interests and a love of learning, students who may feel somewhat out of place during the school year often find a genuine peer group here. Many form close friendships that continue by mail, phone, and e-mail during the school year.

Now that winter winds are blowing, summer may seem far off. But some deadlines are already looming, and programs for talented students are very popular. Classes fill quickly; many accept qualified students on a first-come, first-served basis. So, if you want to apply, don't delay. Make your selection early, and beat the rush. ■

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MAILBAG

Q: *I'd like to get into mathematics competitions, but my school has no math team. What can I do?*

A: Participating in math competitions offers students recognition for their math abilities, practice doing difficult problems, and a chance to meet other students who also enjoy math.

If your school doesn't have a math team, try organizing one yourself. Identify other students who may be interested in participating. If you're in middle school, get information about MATHCOUNTS; if you're in high school, find out about the American Regions Math League (ARML). Then share this information with teachers who could become coaches; a sympathetic teacher is likely to respond to your enthusiasm and motivation.

If a team cannot be organized with official school sponsorship, you can still meet with friends informally to work on problems from past competitions. You also don't need to be a member of a team in order to take the American Junior High School Mathematics Examination (AJHSME) or the American High School Mathematics Examination (AHSME). If these exams are not given at your school, write to Dr. Mientka for information about a school in your area that does administer the tests.*

- **MATHCOUNTS Foundation,** 1420 King Street, Alexandria, VA 22314-2794.
- **ARML:** Mark E. Saul, ARML President, 711 Amsterdam Avenue, New York, NY 10025.
- **AJHSME/AHSME:** Dr. Walter E. Mientka, Department of Mathematics and Statistics, University of Nebraska, 1740 Vine Street, Lincoln, NE 68588-0658.

Q: *I am a 10th grade student looking ahead to college. I scored at a high level on the SATs in 7th grade, get excellent grades, and want to attend a highly selective university. But there are no activities in my school that interest me; I prefer to spend my free time reading or doing science projects at home. How important are extracurricular activities for getting into college?*

A: Selective colleges do consider activities as one element when weighing applications. Although no one should participate in activities *just* to impress colleges, extracurricular activities are an indication of a student's commitment to a particular area of interest. And colleges are looking for students who are bright *and* who will contribute to campus life by being involved outside class.

Search for activities that build on your own interests. For example, since you like doing science projects, you could:

- Join or start a science club in your school.
- Participate in science fairs. Find out about fairs at the local and state levels; plan to submit a project to the national Westinghouse Science Talent Search (STS) during your senior year.*
- Participate in academic summer programs where you can take a science course that is not available in your school or where you can do an internship in a scientific laboratory.
- Find a scientist who will serve as your mentor. This person will be invaluable if you work on a project for the Westinghouse STS. A mentorship will also give you a chance to experience science in the real world.
- Join your school newspaper staff, and offer to write about scientific topics.
- Become a tutor/mentor yourself; work with elementary-aged and/or disadvantaged students to help them with science.
- Volunteer at a science museum.
- Look for other science-related community activities in which you could become involved, such as helping to clean up the environment.

Devising activities that suit your own needs requires time, energy, and enthusiasm. But colleges like to see such initiative, and you will benefit from activities that are truly interesting and challenging to you. ■

**See the September/October issue of* Imagine *for other math and science competitions.*

STUDENTS & PARENTS:

Do you have a question about educational placement, subject/grade acceleration, or other concerns relevant to academically talented students? If so, please write to *Imagine*, SET at CTY, The Johns Hopkins University, Baltimore, MD 21218. Some questions may be answered in the Mailbag column; others may become the subject of an article.

PHOTOS APPEARING IN THIS issue on pages 5, 11, and 12 were provided by Dave Hoffer, CTY Graphics and Publications.

Due to an editorial oversight, the November/December issue omitted credits for Richard Anderson and J. Pat Carter whose photos appeared on pages 7 and 8.

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Opportunities and Resources for Academically Talented Youth

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January/February 1994

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A Student's Perspective on Academic Summer Programs: *Accelerated Learning, Self-Discovery, & Mandatory Fun*

Talented students often find that academic summer programs fill a special need in their lives, both intellectually and socially—as this summer program veteran describes.

by Kimberly Knowles

Summer programs, or "nerd camps" as they are sometimes called, are not just boring summer schools where everyone loves doing homework until their pencil sharpeners overflow. They are a chance to go somewhere and live parent-free for an extended period of time, to learn something for the sake of learning, and to meet people like you who are motivated to learn.

My first summer program was run by the Center for Talented Youth (CTY). I attended the CTY-Skidmore College site and took Writing Skills. I made close friends, as my roommate, Carrie, and I—and the girls who shared our bathroom, Liz and Christina—learned the value of a home-cooked meal while we explored the culinary delights served at the dining hall. In my class, I learned to give and receive constructive criticism, as well as how to write a three- to five-page essay every night. Because we read the essays written by everyone else in the class, we got to know each other pretty well.

On weekends, the girls in my RA group (that's a group of twelve to fifteen girls or guys with the same counselor or Resident Advisor) would camp out all day in the laundry room, sending envoys to sneak food out of the cafeteria, playing cards, and comforting the occasional homesickness victim.

CTY was the best three weeks of my life up to that point. Since then, I've been back to Skidmore two summers, to Bennington College once, and to the Research Science Institute at MIT (RSI). It is surprising to discover how many summer programs are out there when you really look.

Multiple Benefits

The benefits of a summer program are readily apparent. First, you get to experience life without parents; you are on your own and responsible for your own laundry, meals, and homework. Depending on the program, the academic requirements vary from mandatory study time to no structure at all.

Also, you get to discover your true self. Sometimes kids are thrown into the nerd mold at their schools and never find themselves until they get away. At CTY, I realized that no one there knew anything about me and that everything I did would affect their impressions of me.

In terms of concrete benefits, you generally learn a lot, and sometimes you can receive high school or college credit or advanced placement, depending on the program. I was able to do exceptionally well in math and skip chemistry altogether after CTY, and I moved up into an advanced French class after Bennington.

Finally, being on campus gives you an extra window into college life, which may help when you go college-shopping later.

How To Choose

Okay, you've decided you want to go away. There are many factors to consider in choosing a summer program.

When I chose Bennington, I was 16 and thought I'd outgrown CTY where the age range is 12 to 16. Many of my friends were not returning to CTY, either. I went into the guidance office and flipped through all the brochures. I wasn't ready to go to a foreign country for the entire summer. This time I just wanted to study something interesting, with no exams at the end. I didn't want to be in a city. And I was ready for a little more freedom than being confined to a campus, study hours, and a curfew of 10 pm.

One thing that I considered heavily were extra leisure activities. CTY had "mandatory fun" twice every afternoon. These were obligatory sessions of volleyball, frisbee, creative writing, and other relaxing activities to ensure that we wouldn't huddle in our rooms and ignore the world. In most summer programs for older students, free time is often curbed only by a curfew, if that. This didn't seem to be a good idea for me, because I have a tendency to be shy. However, Bennington offered electives for organized social activities and also offered the same freedom as some other programs, including shuttles to town and a midnight curfew.

Another factor in choosing a program is the students. Are high standardized test scores required? At Bennington, they were not; thus many students there were not necessarily the best academically, but were talented in other areas and highly self-motivated. In addition, many smoked. Class offerings at Bennington included The Sixties, drama, law, and journalism. However, admission to RSI is highly competitive. I knew that everyone there would be math and science oriented, and I considered that fact in deciding to attend after my junior year.

So, think about what you want to be doing. Taking classes, producing a play, and doing scientific research are all options. Another question to consider is, how is the program structured? If you are a person who

procrastinates, do you want mandatory study hall hours, or do you want none so that you can learn to prioritize (before you get to college where it counts)?

Length of time is another factor to consider. I knew that I wanted something longer than three weeks when I chose Bennington. Homesickness might drag you down, so if this is your first time away, you might want to stick to a one- or two-week program. Shorter programs often let you plan around family vacations during the summer.

Cost Considerations

Cost is another issue that may limit your choices. CTY and Bennington were expensive, considering I could have stayed at home and gotten a job. However, almost all programs offer some need-based financial aid. Sometimes local clubs offer grants; I received a small scholarship from my school's Music Association to study music at Bennington. A few science research programs offer a stipend for your work; and a few programs are free except for transportation, such as RSI, Telluride, and Governors' Schools.

Another way to cut costs is to commute. While living on campus is fun, many programs allow you to commute if you live nearby—which gives you the learning experience and the people, if not the laundry. If the program has a commuter option, it's generally cheaper than being in residence.

Summing Up

All in all, summer programs are generally worthwhile. You get to meet new and interesting people, make lifetime friendships, and learn without the pressure of grades.

CTY allowed me to accelerate through high school. At Bennington I learned how to keep the peace between friends and roommates and how to play pool. At RSI, I ate Pop-Tarts raw and got to talk about high-level math and science principles while experiencing MIT, where I decided to apply for college. I also discovered the value of a good night's sleep.

Summer programs are what you make of them, and they can be the best times of your precollege life. ■

Kimberly Knowles did apply to MIT, as she had planned, and is now a freshman there. She reports that she is enjoying lectures by scientists of world renown, appreciates MIT's "pass/no record" policy for freshmen, participated in seven musical groups during the fall semester, and somehow still manages to sleep seven hours a night.

A version of this essay appeared last year in *The Prufrock Journal*, now known as *The Journal of Secondary Gifted Education*. Reprinted with the author's permission.

Talent Search Programs

These summer programs are either conducted by universities that sponsor annual talent searches or modeled after such talent search programs. Eligibility is based on scores on the SAT or another aptitude measure.

Talent Search programs take place in supervised campus settings and offer academic challenge, acceleration, and enrichment. Classes typically meet five or six hours a day, with an evening study hall. Fast-paced coursework, small class sizes, and low student-to-faculty ratios enhance the joy of learning. And social, cultural, and recreational events provide breaks in the academic schedule. Upon completing many of these programs, students receive transcripts and teacher recommendations. Some middle and high schools may be willing to accept these credentials for course credit or advancement to a higher course level.

Qualified students may apply to any of these programs on a space-available basis; however, centers typically give priority to their own talent search participants.

ATS:
The Academic Talent Search and Accelerated College Entrance Center

California State University, Sacramento, California

The ATS Summer Program uses the SAT or SCAT to identify students completing grades 6 through 9 who have exceptional academic potential. Options for the three-week or six-week courses on campus include fast-paced mathematics (algebra through precalculus), writing, journalism, drama, public speaking, debate, foreign languages, biology, forensic science, computer science, engineering, problem solving, and study skills.

This is a commuter program, but some host families house participants from outside the Sacramento area, and carpooling lists are available.

Dates for the 1994 ATS Summer Program are June 27-August 5. Fees range from $120 to $250 per course; financial aid/scholarships are available. The application deadline is May 2.

Dr. Terry Thomas, Director, ATS, CSU-Sacramento, 6000 J Street, Sacramento, CA 95819-6098; (916) 278-7032; FAX (916) 278-5930.

CAP:
Center for Academic Precocity

Arizona State University, Tempe, Arizona

The CAP program in the College of Education offers classes on the Arizona State University campus in Tempe and the ASU Thunderbird campus. Entrance into the commuter program and the five-week residential program is based on SAT scores for grades 7-11 and on SCAT scores for grades 2-6. Entrance into the three-week residential program is based on scores from a standardized achievement, ability, or intelligence test.

A five-week **Commuter Program** is offered for **pre-kindergarten through grade 11** students on the ASU Tempe campus and for those completing **grades 2 through 11** on the ASU Thunderbird campus. Also available on the Tempe campus are a five-week **Residential Program** for students completing **grades 7 through 11** and a three-week residential program for those completing **grades 5 and 6**. Workshops are available to students completing **grades 7 through 11**. Students may take courses in the humanities, mathematics, science, and computers.

Dates for the 1994 CAP three-week residential program are July 2-July 23; for the five-week commuter program, July 5-August 5; and for the five-week residential program, July 2-August 6. Fees for the residential programs are $1,275 for three weeks and $2,025 for five weeks; for the commuter program, $325 per course. The application deadline is April 30; applications will be accepted beyond that date as space permits.

Dr. Eleanor Jordan, Director, CAP, College of Education, Arizona State University, Tempe, AZ 85287-2711; (602) 965-4757; FAX (602) 965-1069.

CTD:
Center for Talent Development

Northwestern University, Evanston, Illinois

CTD's Apogee program is listed under Young Students.

CTD offers a variety of programs to develop the academic potential of students with qualifying SAT or ACT scores.

The three-week **Spectrum** Summer Program, with residential and commuter options, is open to those completing grades 7 through 9. Students select one fast-paced high school course in precalculus mathematics, biology, chemistry, Latin, literary analysis, non-fiction writing, creative writing, or computer science. Dates for Spectrum '94 are June 26-July 16 and July 24-August 13. Fees are $1,490 (residential) and $745 (commuters).

Three CTD programs are open to students completing grades 10, 11, and 12:

The **Equinox** Program offers advanced high school courses in mathematics problem solving, science, AP English Literature, AP Language and Composition, and AP European History. Dates for Equinox 1994 are June 26-July 16. Fees are $1,550 (residential) and $800 (commuter).

The **Solstice** Program offers college-level courses in mathematics, science, and the humanities. Dates for Solstice 1994 are July 24-August 13. Fees are $1,590 (residential) and $825 (commuter).

The **Academy** Program brings together a small group of students with an experienced teacher and teaching assistant for three weeks of exploration and discussion of philosophical questions and problems that arise out of everyday experience. Presentations by university professors in Chicago-area philosophy and literature departments supplement the curriculum. Dates for the 1994 Academy Program are July 24-August 13. Fees are $1,590 (residential) and $825 (commuter).

Need-based financial aid is available for all programs. The application deadline is May 31.

Dr. Barry Grant, Director, CTD, Northwestern University, 617 Dartmouth Place, Evanston, IL 60208; (708) 491-3782; FAX (708) 467-4CTD.

CTY: Center for Talented Youth

The Johns Hopkins University
Baltimore, Maryland

Other CTY programs are listed under Young Students, Science, and Study Abroad.

CTY provides Summer Residential Programs at host colleges for students aged 12 through 16 with qualifying SAT scores. The '94 summer sites are Franklin & Marshall College, Lancaster, Pennsylvania; Dickinson College, Carlisle, Pennsylvania; Hamilton College, Clinton, New York; Skidmore College, Saratoga Springs, New York; Loyola Marymount University, Los Angeles, California; and The Johns Hopkins University, Baltimore, Maryland.

Options include intensive high school courses in precalculus, biology, chemistry, and American and European history, as well as college-level courses in writing, music theory, geopolitics, computer science, and genetics.

Dates for the 1994 CTY sessions are June 26-July 15 and July 17-August 6. Fees for each session are $1,680 (residential) and $765 (commuter); need-based scholarships are available. The application deadline is April 8.

Academic Summer Programs, CTY, The Johns Hopkins University, Baltimore, MD 21218; (410) 516-0337; FAX (410) 516-0804.

CY-TAG: Challenges for Youth—Talented and Gifted

Iowa State University, Ames, Iowa

The Iowa Scholars Academy at ISU is listed under College Credit.

CY-TAG, co-sponsored by SMPY at ISU, offers individualized, intensive, and accelerated studies for academically talented students aged 11-16 who have qualifying SAT or ACT scores.

Courses offered in 1994 include precalculus mathematics, physics, chemistry, engineering, logical thinking, Latin, computer science, and mentorship opportunities.

Dates for the 1994 CY-TAG sessions are June 18-July 9 and July 16-August 6. The fee for one three-week session is $975; financial aid is available. The application deadline is April 15.

Teresa Argo, Program Coordinator, CY-TAG, Iowa State University, W172 Lagomarcino Hall, Ames, IA 50011-3810; (515) 294-1772; FAX (515) 294-6424.

Duke TIP: Duke University Talent Identification Program

Durham, North Carolina

Other Duke TIP programs are listed under Science and Study Abroad.

The TIP Summer Residential Program offers fast-paced courses for academically talented students completing grades 7-10. Admission is based on qualifying SAT or ACT scores. Courses are taught on the campuses of Duke University and Davidson College, at the Duke University Marine Lab, and at the Texas A&M Marine-Lab.

Options for study include animal behavior, astronomy, biology, chemistry, Chinese I, economics, French I, German I, Latin I, precalculus mathematics, the Roman World, introductory writing, computer science, psychology, American history, discrete mathematics, number theory, philosophy, physics, Russian, marine ecology, logic, film and video, and Shakespeare and performance. College credit is available for some courses.

Dates include various three-week terms between June 18 and August 15. Fees begin at $1,800; financial aid is available. The application deadline is May 2.

Kayla Hamilton, Admissions Officer, Duke TIP, Box 90747, Durham, NC 27708-0747; (919) 684-3847; FAX (919) 681-7921.

Rocky Mountain Talent Search Summer Institute

University of Denver, Colorado

The Rocky Mountain Talent Search offers two sessions during its 1994 Summer Institute: a two-week commuter session for students aged 10-16, and a three-week session, with residential and commuter options, for students aged 12-16. Students qualify based on SAT or ACT results.

Participants may select from a variety of courses for intensive summer study in a supervised campus setting. Classes are held during the week, with special social, cultural, and recreational events planned for the weekends. Tentative course offerings include algebra, biology, calculus, chemistry, creative writing, geometry, history/current events, Latin, literature, physics, psychology, and theater.

The two-week Session I for commuting students will be held June 10-24. The three-week Session II, both commuter and residential, will be

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held **July 10-30.** The cost for the Session I commuter program is **$250** (one class), $500 (two classes); Session II costs are $1,495 for residents and $375 (one class) or $750 (two classes) for commuters. Limited financial aid/scholarships are available. The application deadline is **May 21.**

Rich Radcliffe, Director, Rocky Mountain Talent Search, University of Denver, Wesley Hall-Room 203, 2135 East Wesley Avenue, Denver, CO 80208; (303) 871-2983; FAX (303) 871-3422.

WCATY: Wisconsin Center for Academically Talented Youth

Madison, Wisconsin

Other WCATY programs are listed under Young Students and College Credit.

WCATY sponsors the Summer Program at the University of Wisconsin-Eau Claire for students completing **grades 7-10** who have qualifying SAT or ACT scores. Students may choose to study literary analysis and writing, etymologies, cultural geography, introduction to anthropology, precalculus mathematics, geometry, microeconomics, history of number theory, or supercomputer applications.

Dates of the 1994 Summer Program are **July 10-July 30.** Fees are **$1,270** for Wisconsin residents and **$1,490** for out-of-state residents. Need- and merit-based aid is available to Wisconsin residents. One letter of recommendation from a teacher must accompany the application; the deadline is **May 1.**

Julie Giese, Administrative Assistant, WCATY, Suite 120, 8017 Excelsior Drive, Madison, WI 53717; (608) 831-6144; FAX (608) 836-3893.

Western Kentucky University Summer Program for Verbally and Mathematically Precocious Youth

Bowling Green, Kentucky

This residential three-week program is open to students completing **grades 7, 8, 9, and 10** who qualify on the basis of SAT or ACT scores. Participants choose one fast-paced course in biology, chemistry, computer science, drama through the centuries, expository writing, German I, humanities, Nazi Germany and the Holocaust, physics, or precalculus mathematics.

Dates for the 1994 Summer Program are **July 4-23.** The fee is **$1,100.** Need-based financial aid is available to Kentucky residents. A deposit of $100 is due with the application; call for the deadline.

Julia Roberts, The Center for Gifted Studies, Western Kentucky University, Big Red Way, Bowling Green, Kentucky 42101-3576; (502) 745-6323; FAX (502) 745-6470. ■

Young Students Programs

Additional options for young students offered by CAP, CY-TAG, and Rocky Mountain Talent Search are listed under Talent Search Programs.

These Young Students programs were developed when university talent searches serving students in grades 7 and up expanded to include those in grades 5 and 6. Participants are well supervised at all times.

CTD Apogee

Center for Talent Development
Northwestern University, Evanston, Illinois

CTD's three-week Apogee Program is open to students completing **grades 5 and 6** who have qualifying PLUS scores. Students select one course from among offerings in mathematics, science, and the humanities.

Dates for CTD Apogee 1994 are **June 26-July 16** and **July 24-August 13.** Fees are $1,490 (residential) and $745 (commuter). Need-based financial aid is available. The application deadline is **May 31.**

Dr. Barry Grant, Director, CTD, Northwestern University, 617 Dartmouth, Evanston, IL 60208; (708) 491-3782; FAX (708) 467-4CTD.

CTY Young Students

Center for Talented Youth
The Johns Hopkins University,
Baltimore, Maryland

The CTY Young Students Summer Residential Program is designed for highly able students who are completing **grades 5 and 6** and have earned qualifying scores on the PLUS test. Three-week courses in mathematics, science, and the humanities will be held on the campuses of Goucher College in Baltimore, Maryland; Connecticut College in New London, Connecticut; and Loyola Marymount University in Los Angeles, California.

Dates for the 1994 CTY Young Students Summer Program are **June 26-July 15** and **July 17-August 6.** Fees for one session are $1,680 for residents and $765 for commuters. Some need-based scholarships are available. The Young Students application deadline is **April 15.**

Young Students Summer Program, CTY, The Johns Hopkins University, Baltimore, MD 21218; (410) 516-0337; FAX (410) 516-0804.

WCATY Young Students

Wisconsin Center for Academically Talented Youth, Madison, Wisconsin

WCATY sponsors a Young Students Summer Program for students completing **grades 5 and 6** who have qualifying scores on the PLUS test or SSAT as MTSY participants, or on the SAT or ACT. This one-week intensive accelerated/enrichment program takes place on the campus of Beloit College in Beloit, Wisconsin.

Dates for the 1994 WCATY Young Students Summer Program are **July 31-August 6.** Fees are $475 for Wisconsin residents and $525 for non-residents. Two recommendations from teachers and a student essay must accompany the application; the deadline is **May 1.**

Deborah Katz Hunt, Program Director, WCATY, Suite 120, 8017 Excelsior Drive, Madison, WI 53717; (608) 831-6144; FAX (608) 836-3893. ■

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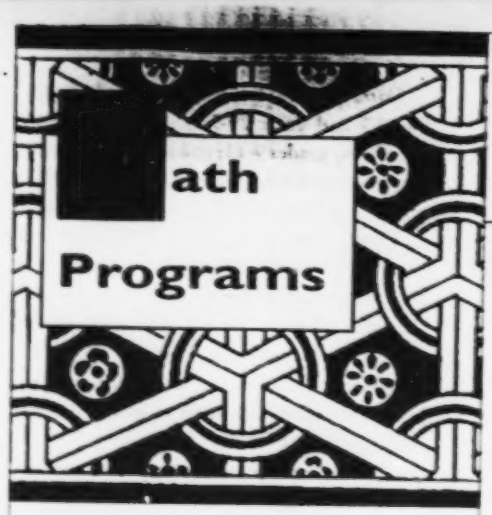

HCSSIM:
Hampshire College Summer Studies in Mathematics
Amherst, Massachusetts

The six-week HCSSIM program offers small classes and problem seminars to students completing grade 10 or 11 who are ready to engage actively in the processes of mathematical thought. Applicants must write a letter about why they want to attend and must be recommended by a high school mathematics teacher, who then administers HCSSIM's "Interesting Test" which is designed to measure how students handle new ideas.

HCSSIM participants investigate concrete problems, seek patterns and generalizations, formulate and test conjectures, and create proofs. Challenging problems, significant and active branches of mathematics—including number theory, combinatorics, topology, chaos, artificial intelligence, and probability—and substantial applications from outside the usual secondary school curricula are intensively investigated. Emphasis is on methods of discovery and proof.

Students receive personal mathematical guidance on a daily basis. Visiting mathematicians and professional users of the subject, films, computer labs, a program journal, and an extensive library contribute to an environment in which mathematics is created, shared, and enjoyed.

Dates for HCSSIM 1994 are July 3-August 13. The fee is $1,224. HCSSIM is a National Science Foundation Young Scholars Program; generous financial aid is available. Admissions are made on a rolling basis, as applications are received.

Professor David C. Kelly, Box NS, Hampshire College, Amherst, MA 01002-5001; (413) 582-5375; FAX (413) 549-0707.

PROMYS:
Program in Mathematics for Young Scientists
Boston University, Boston, Massachusetts

PROMYS offers a residential environment in which ambitious high school students completing grades 9, 10, and 11 explore the creative world of mathematics. Admissions are based on the following criteria: applicants' solutions to a set of challenging problems included with the application packet, teacher recommendations, high school transcripts, and student essays explaining their interest in the program.

Through their intensive efforts to solve unusually challenging problems in number theory, sixty students practice the art of mathematical discovery—numerical exploration, formulation and critique of conjectures, and techniques of proof and generalization. More experienced participants may also study abstract algebra, algebraic number theory, and dynamical systems. Problem sets are accompanied by daily lectures given by research mathematicians with extensive experience in Professor Arnold Ross's longstanding summer mathematics program at Ohio State University.

A highly competent staff of 18 college-age counselors live in the dormitories and are always available to discuss mathematics with students. Each participant belongs to a problem-solving group that meets with a professional mathematician three times a week. Special lectures by outside speakers offer a broad view of mathematics and its role in the sciences.

Dates for PROMYS 1994 are July 3-August 13. The fee is $1,246; books may cost an additional $100. PROMYS is dedicated to the principle that no student will be unable to attend because of financial need. Applications will be accepted March 1 to June 1, 1994.

Professor Glenn Stevens, Director, PROMYS, Department of Mathematics, Boston University, 111 Cummington Street, Boston, MA 02215; (617) 353-2563.

Ross Young Scholars Program
The Ohio State University, Columbus, Ohio

The Ross Young Scholars Program is open to students (approximately) 14-17 years of age. Applicants are judged on the quality of their thinking and the strength of their interest in the program, as indicated by their application questionnaire, essay, completed problems, and letters of recommendation.

The objective of the Ross Young Scholars Program is to break ground for those who have a strong desire to pursue careers in mathematics, science, or technology—in short, to provide a vivid apprenticeship to research.

Chosen as a point of departure, discrete mathematics is very accessible and its ideas are increasingly important in all of mathematics, as well as in science and technology. Also, discrete mathematics offers opportunities for observing, conjecturing, testing conjectures for possible counterexamples, and ultimately achieving a measure of security through reasoned argument—all important components of scientific thinking. Thus, students involved in problem-solving not only acquire new techniques, but also learn to appreciate new ideas.

Number theory (taught to all first-year participants) serves as an underpinning for discrete mathematics, followed by combinatorics, among other things, in the second summer of the multi-level program. Participants who return for another summer build upon the mastery of ideas acquired the year before and enjoy opportunities designed for more advanced students.

Dates for the 1994 Ross Young Scholars Program are June 19-August 13. The fee of approximately $1,300 does not include incidental expenses. Some financial aid is available. The application deadline is May 15.

Professor Arnold E. Ross, Department of Mathematics, The Ohio State University, 231 W. 18th Avenue, Columbus, OH 43210; (614) 292-1569; FAX (614) 292-1479. ■

Individual math courses are offered by programs listed under Talent Search, Young Students, College Credit, and Study Abroad.

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Science Programs

The Connie Belin National Center for Gifted Education

The University of Iowa, Iowa City, Iowa

The Connie Belin Center offers two three-week intensive science programs: The Summer Space Science and Engineering Program for Iowa residents completing grade 9, June 19-July 8, is partially funded by NASA; students pay $350. The Summer Institute for Creative Engineering and Inventiveness for residents of Iowa and its contiguous states completing grades 10 and 11, July 10-July 29, 1994, and May 6, 1995, is funded by a National Science Foundation grant and is free to participants.

Iowa students must be nominated by their high school counselor; students in other states must be nominated by their State Department of Education or Department of Public Instruction. Nominations are due February 15, 1994.

The Connie Belin National Center for Gifted Education, the University of Iowa, 210 Lindquist Center, Iowa City, Iowa 52242-1529; (319) 335-6148 or (800) 344-3450; FAX (319) 335-5386.

CTY-SEA Program in Oceanography

Center for Talented Youth
The Johns Hopkins University

The CTY-Sea Education Association (SEA) program offers the opportunity to study oceanography from both theoretical and practical perspectives to students 15 years old by August 7 with qualifying SAT scores.

The CTY-SEA program includes two weeks ashore in Woods Hole, Massachusetts, and one week at sea on board a research sailing vessel, the SSV *Corwith Cramer*. On shore, students study the concepts of oceanography through lectures, workshops, and field excursions. Activities during the cruise emphasize interrelationships between the biology, geology, and physical characteristics of the waters south of Martha's Vineyard and Nantucket Shoals.

Dates for the 1994 CTY-SEA program are August 7-27. The fee is $2,100. Spaces for 22 students will be filled on a first-come, first-served basis. The application deadline is April 30.

CTY-SEA Program in Oceanography, The Johns Hopkins University, Baltimore, MD 21218; (410) 516-0337; FAX (410) 5116-0804.

Duke TIP Scientific Field Studies

Duke University Talent Identification Program

High school students with qualifying SAT or ACT scores may participate in Duke TIP Scientific Field Studies in Costa Rica, Virginia, or Colorado and Wyoming. Activities include hands-on scientific study, field excursions to various ecological sites, and group and individual projects.

Dates for the Costa Rica trips are June 23-July 13 and June 29-July 19 for students completing grades 9-11; and July 18-August 8 for those completing grade 11; the fee is $2,190.

Three additional programs are open to students completing grades 10 and 11: Mountain Lake, Virginia; July 31-August 13; $1,240. Field Studies in the High Desert, New Mexico, are June 19-July 2; $1,350. Rocky Mountain Ecology in Colorado and Wyoming; June 20-July 11; $1,740. Fees do not include travel costs to the site. The application deadline is May 2.

Mike Gunzenhauser, Coordinator for PreCollege Programs, Duke University, Box 90747, Durham, NC 27708-0747; (919) 684-3847; FAX (919) 681-7921.

Dr. Bessie F. Lawrence International Summer Science Institute in Israel

Weizmann Institute of Science

Highly able students completing grade 12 who have independent research experience are eligible for the month-long Dr. Bessie F. Lawrence International Summer Science Institute held in Rehovot, Israel. Seventy-five students from Europe, Asia, the Americas, and Israel participate in this intensive residential program and work with Weizmann Institute researchers.

Studies are conducted in English. Working in groups of two or three, students choose a current topic in biology, chemistry, physics, mathematics, or computer sciences for laboratory research. After three weeks at the Institute, the group shifts to a field school in the Negev desert in the southern part of Israel for field research in life systems, geology, and climatology.

Dates for the 1994 Summer Science Institute are July 6-August 5. All program costs, including air transportation and housing, are covered by full scholarships available to qualifying students. The application deadline is March 1.

Diane Sarnoff, Dr. Bessie F. Lawrence International Summer Science Institute, American Committee for the Weizmann Institute of Science, Suite 117, 51 Madison Avenue, New York, NY 10010; (212) 779-2500; FAX (212) 779-3209. ■

SERIOUS ABOUT SCIENCE? *Keep this program in mind for the future.*

RSI: Research Science Institute, Center for Excellence in Education

The annual Research Science Institute, offered by the Center for Excellence in Education in collaboration with the Massachusetts Institute of Technology, is a free program for qualified students completing grade 11. Although the February 1 deadline for this year's program has passed, high school sophomores and younger students should note it for upcoming summers.

Acceptance to RSI is intensely selective and based on PSAT scores, high school transcript, personal essay, and recommendations from teachers. The selection committee considers not only academic excellence but also demonstrated leadership in community and school activities and the potential for leadership in science and math.

About 50 students spend six weeks living on the MIT campus, working with renowned scientists/mentors on highly sophisticated projects that would be suitable for submission to the Westinghouse Science Talent Search. They also attend the RSI Distinguished Guest Lecture Series, featuring leaders in science and the humanities, and enjoy cultural and scientific field trips on weekends.

Maite P. Ballestero, Center for Excellence in Education, 7710 Old Springhouse Road, McLean, VA 22102; (703) 448-9062.

Science courses are also offered by programs listed under Talent Search, Young Students, College Credit, and Study Abroad.

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Other programs offered at Duke, Johns Hopkins, CY-TAG, and WCATY are listed under Talent Search.

More and more universities are opening their doors in the summer to enroll high school students who earn college credits along with undergraduates while enjoying a taste of campus life. (Even colleges without official precollege programs often permit qualified students to register for summer courses on an individual basis, so be sure to explore options at any college that interests you.)

The Advanced Placement Academy is included here because many colleges and universities grant college credit and/or advanced standing to incoming freshmen who have earned high scores for Advanced Placement courses. One advantage of this program is that students take the AP exam at the end of the course, rather than having to wait for the test administration the following May.

Duke PreCollege Program

Duke University, Durham, North Carolina

College credit is also given for some of the Duke TIP courses listed under Talent Search.

In the residential Duke PreCollege Program, students completing grade 11 enroll in undergraduate summer courses taught by Duke faculty members. Options include anthropology, art, biology, chemistry, computer science, engineering, English, foreign languages, history, mathematics, music, philosophy, physics, political science, psychology, religion, and sociology.

Dates for the 1994 Duke PreCollege Program are June 24-August 7. The fee is $3,940. Need-based financial aid is available. Preference is given to applications received by March 15.

Mike Gunzenhauser, Coordinator for PreCollege Programs, Duke University, Box 90747, Durham, NC 27708-0747; (919) 684-3847; FAX (919) 681-7921.

Hopkins Summer Pre-College Program

The Johns Hopkins University
Baltimore, Maryland

The Hopkins Summer Pre-College Program, sponsored by the School of Arts and Sciences, offers college credit to academically talented high school students. This five-week residential and commuter program is open to students completing grades 10, 11 and 12, who will be at least 16 years of age by July 1, 1994, and who have a GPA of at least 3.0 in their high school or preparatory school.

Students attend classes with undergraduates in one of three programs—American government, medical science, or college preview—and complete two undergraduate courses. Options include chemistry, literature, political science, writing, psychology, economics, languages, math, art, sociology, classics, earth science, history, humanities, physics, cognitive science, and computer science.

Precollege students also participate in workshops on study skills, time management, and the college admissions process; tour Hopkins research facilities; and travel to cultural and historical sites in the Baltimore-Washington area.

Dates for the 1994 Hopkins Summer Pre-College Residential and Commuter Program are July 4-August 5. Fees depend on the program selected. Need- and merit-based financial aid is available, but limited. The application deadline is April 18.

Patricia Palmer Sine, Director, Hopkins Summer Programs, The Johns Hopkins University, 230 Mergenthaler, Baltimore, MD 21218; (410) 516-4548; FAX (410) 516-6017.

Iowa Scholars Academy Office of Precollegiate Programs for Talented and Gifted (OPPTAG)

Iowa State University, Ames, Iowa

The Iowa Scholars Academy accepts students who are completing grades 11 and 12 and have exceptional PSAT, PACT, SAT or ACT scores. They may earn up to ten university credits by taking Iowa State summer courses such as calculus, chemistry, physics, zoology, psychology, and English.

Dates for the 1994 Iowa Scholars Academy summer session are June 11-August 6. The fee is about $1,800, depending on the number of credits taken. Financial aid may be available. The application deadline is April 1.

Teresa Argo, Program Coordinator, Iowa State University, W172 Lagomarcino Hall, Ames, IA 50011-3180; (515) 294-1772; FAX (515) 294-6424.

WCATY Senior

Wisconsin Center for Academically Talented Youth
Madison, Wisconsin

Other WCATY programs are listed under Talent Search and Young Students.

WCATY Senior offers a summer residential program on the campus of the University of Wisconsin-Madison to students with qualifying SAT or ACT scores who are completing grades 11 and 12. Participants receive college credit for taking an undergraduate course, Introduction to Philosophy.

Dates for WCATY Senior 1994 are June 12-July 1. The fee is $1,350. Need- and merit-based financial aid is available for Wisconsin residents. Applications are due May 1.

Deborah Katz Hunt, Program Director, WCATY, Suite 120, 8017 Excelsior Drive, Madison, WI 53717; (608) 831-6144; FAX (608) 836-3893.

Advanced Placement Academy

The Connie Belin National Center for Gifted Education
The University of Iowa, Iowa City, Iowa

Other Connie Belin Center programs are listed under Science.

The Advanced Placement Academy allows extremely able students to complete an intensive, six-week AP course, followed immediately by the AP examination. Students completing grades 10-12 are considered for admission based on standardized test scores, grade point average in a specific subject area, student essay, and recommendations from two teachers; strong evidence of motivation in the subject area and of maturity to succeed in a residential setting are required.

Three AP courses and examinations are offered for summer 1994: Calculus AB, US Government and Politics, and English Literature and Composition. A maximum of twenty students will be selected for each AP course; each student may take only one course.

Dates for the 1994 AP Academy are June 19-July 29, with the AP examinations to be given on July 29. The fee is $2,300; some scholarships and need-based financial aid are available. Admissions are made on a rolling basis up to a final deadline of March 1.

Advanced Placement Academy, The Connie Belin National Center for Gifted Education, 210 Lindquist Center, The University of Iowa, Iowa City, IA 52242; (319) 335-6148 or (800) 336-6463; FAX (319) 335-5151. ■

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Study Abroad

The Weizmann Institute program in Israel and Duke TIP Field Studies in Costa Rica are listed under Science.

Center for Excellence in Education

The Center for Excellence in Education, parent of the annual Research Science Institute (RSI) for students academically talented in mathematics and science, offers mini-courses taught in English in three international locations: Bulgaria, Italy, and France. Qualifying students who have completed the equivalent of two years of high school may choose to study math only, humanities only, or a math/humanities combination. The mathematics coursework requires strong achievement in mathematics through Algebra II.

American University, Blagoevgrad, Bulgaria: Professors who have coached the Bulgarian International Math Olympiad (IMO) teams and are associated with the Bulgarian Academy of Science teach number theory. A Bulgarian professor of the American University teaches the history and art of Bulgaria. Students spend a weekend in Thessaloniki, Greece. **June 25-July 11, $1,300.**

University Louis Pasteur, Strasbourg, France: An internationally known professor of mathematics who is a member of the faculty of the Institut de Mathématique, teaches a two-week mini-course in number theory. A ten-year veteran of the RSI professorial staff focuses on a French classic during the humanities course. The last weekend is spent in Paris. **July 9-July 25, $1,600.**

University of Rome, Rome, Italy: A professor on the Mathematics, Physics, and Complementary Mathematics faculty, who has coached the Italian IMO team, will teach number theory. A professor from the Institute for Art History will teach The History of Architecture in Rome from the Renaissance to the Baroque Period. Weekend trips will be taken to Florence, Pompeii, Naples, and the Isle of Capri. **June 25-July 11, $1,600.**

Students and staff live in a comfortable university residence. Program costs cover tuition, course materials, lodging, breakfast and dinner on weekdays (only breakfast on weekends), and ground transportation; airfare is not included. A high school transcript and recommendations from two teachers must accompany the application; the deadline is **March 1.**

Center for Excellence in Education, 7710 Old Springhouse Road, McLean, VA 22102; (703) 448-9062; FAX (703) 442-9513.

CTY International

Center for Talented Youth
The Johns Hopkins University

CTY in Germany: CTY offers a German Exchange Program in collaboration with Bildung und Begabung e.V., an organization dedicated to providing appropriate educational opportunities to highly able students. Through this exchange, selected American students join German students in the German equivalent of CTY. The two-and-a-half-week academic program is preceded by a week-long home stay with a German family whose son or daughter also participates in the program. During the academic session, each American student rooms with a German-speaking participant, and all courses are conducted in German.

To be eligible, students aged 16-19 must have strong German language skills, especially good speaking ability. To apply, students submit a letter of interest to CTY, explaining how they acquired proficiency in the language (by studying at a local school or college, participating in other exchange programs, living abroad or in a bilingual family, etc.). The selection process includes a telephone interview with a German-speaking member of the CTY staff.

Dates for the 1994 CTY German Exchange Program will be announced in February. The fee is $1,680, not including airfare. The application deadline is **April 8.**

German Exchange Program, Academic Summer Programs, CTY, The Johns Hopkins University, Baltimore, MD 21218; (410) 516-0337; FAX (410) 516-0804.

CTY Ireland: Independently operated by Dublin City University, CTY Ireland is modeled on the JHU CTY program; courses reflect CTY philosophy and pedagogy. Tentative offerings include drama, literature, and writing; archaeology; biotechnology; computer applications; mathematical modeling; psychology; media and communication; and geopolitics.

Dates for the 1994 CTY Ireland program are **July 10-29.** The fee is **$1,500,** not including airfare; there is an **$80** discount for early registration. JHU CTY endorses, but does not directly administer, this program; correspondence and requests for brochures should be directed to CTY Ireland in Dublin.

The Centre for Talented Youth, Dublin City University, Dublin 9, Ireland; 011-353-1-7045634; FAX 011-353-1-7045693.

Duke TIP International

Duke University Talent Identification Program

TIP International offers six international study programs for students completing **grades 8-11** (unless otherwise noted):

TIP in China: Participants room with Chinese students while studying Chinese life and language at Beijing Teachers College. Afternoons are spent learning oriental calligraphy, practicing martial arts, and playing Chinese musical instruments. Students visit the Chinese National Opera, the Forbidden City, and the Great Wall. The final week is spent at a university in Shanghai. **July 13-August 11, $2,080.**

TIP in England: Participants choose to study Shakespeare, and discover the London of Elizabeth I and historic theaters; or choose international relations, and learn about England's post-World War II era. Both courses include excursions to museums, cathedrals, the Tower of London, Hampton Court, and Greenwich. **June 21-July 12, $2,280.**

TIP in France: Before leaving for France, participants read up on French history and culture; after returning, they complete a special project for college credit. This 16-day tour begins in Paris, ends along the Côte d'Azur, and includes visits to Caen, St. Malo, the Loire Valley, Nîmes, and Nice. Limited to students completing grades 9-11; dates and cost to be announced. For this program only, the cost includes airfare from Atlanta.

TIP in Germany: Students in the German Exchange Program spend a week living with a German family, attend classes taught in German with highly able students at Bildung und Begabung e.V., take local excursions, and end with a four-day tour of Berlin. July 6-August 3 (tentative dates), $1,985.

TIP in Italy: While studying Roman archaeology and the Italian language, students visit the Roman Forum, Colosseum, Catacombs, and Vatican, and take day trips to ancient sites near Rome. July 19-August 9, $2,350.

TIP in Japan: Participants study Japanese language and culture while traveling from home base in the seaport of Toyama to Tokyo, Kyoto, and the Tatayama Mountains. Students speak a mixture of Japanese and English and spend a weekend living with a Japanese family. July 22-August 15, $2,380.

Costs for international programs (except TIP in France) do not include airfare. The application deadline is April 15.

Kayla Hamilton, Admissions Officer, Duke University Talent Identification Program, Box 90747, Durham, NC 27708-0747; (919) 684-3847; FAX (919) 681-7921. ■

Numerous excellent summer programs are offered in the visual and performing arts, including these two well-established and highly-respected options. Your own music, drama, dance, or art teacher may know of other possibilities.

Interlochen Arts Camp

Interlochen, Michigan

Interlochen is located in northern Michigan on a 1200-acre wooded campus between two large clearwater lakes. Emphasis is on a balanced program of study, sports, and relaxation. Students eligible for the High School Division include those completing grades 9-12; Intermediate Division, grades 6-9; and Junior Division, grades 3-6.

Training is available in music, visual arts, dance, and theatre. Professionally trained faculty are supplemented by visiting performers who conduct master classes and workshops for students. During the '93 season, cellist Yo-Yo Ma performed with the World Youth Symphony Orchestra; and the Detroit Symphony Orchestra with conductor Neeme Jarvi was in residence for four days of master classes, private lessons, chamber music performances, and a full orchestral program.

Dates for Interlochen Arts Camp '94 are June 26-August 22. Older students are accepted only for the full, eight-week session; the Junior Division provides a four-week alternative. The fee of $3,440 (or $2,065 for four weeks) covers room and board, all class courses and most group instruction, camp uniform, all recreational facilities, and admission to faculty and student performances. Additional fees charged for supplies, laboratory costs, and private/semi-private lessons are listed in the application. Early application is recommended; requests for financial aid must be postmarked by February 15.

Interlochen Arts Academy, PO Box 199, Interlochen, Michigan 49643-0199; Admissions Office (616) 276-7472; FAX (616) 276-6321.

Tanglewood Institute

Boston University

This summer program in residence at Tanglewood in Lenox, Massachusetts, is offered in conjunction with the Boston University School for the Arts and the Boston Symphony Orchestra. Students ages 15-18 who qualify by audition are eligible for the Young Artists programs in orchestra and chamber music, vocal, piano, and composition. They may also attend seminars in clarinet, harp, saxophone, Empire Brass, and Listening and Analysis. The Tanglewood Institute also offers a Visual Arts Program. Admission and placement are dependent upon a portfolio evaluation. College credit is available for most programs.

Dates for the 1994 Tanglewood Institute are June 27-August 20. The fees are approximately $3,700 for eight weeks and $2,300 for four weeks. Merit- and need-based scholarships are available. The application deadline is March 14.

Boston University Tanglewood Institute, 855 Commonwealth Avenue, Boston, MA 02215; (800) 643-4796. ■

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"I have never met teachers so willing to challenge, to provoke imagination, to laugh. You are not mere students to them; you are friends in the pursuit of knowledge." Maria D'Amore, South Nyack, NY

"I found a place where I was valued for who I am, not what I look like. Here I was myself, not part of the crowd." Chanin Petprasit, Walnut, CA

"Learning becomes easier when you are with other people who also want to learn." Mark Ellenbecker, Germantown, WI

"I was always amazed that three weeks spent with other teenagers in such an intensive academic environment could produce stronger friendships than those I had with people I'd known all my life." Meghan Cadwallader, Schuylerville, NY

"I had a chance to study subjects most students my age have barely heard of. Whole new worlds were given to me to enjoy." Rachael Schechter, West Chester, PA

"It's a great experience to walk into a classroom and know that everyone there, not just two or three, is as smart as you." Andrew Mast, Guilderland, NY

"For me, these summer programs offer a unique academic opportunity. Where else could I take hands-on courses in paleo-biology or genetics? Certainly not at school!" Jeremy Hlavacek, Leonia, NJ

Quotes are not matched with photos.

"Never before had I been surrounded by such an amazingly talented, diverse (in nationality, ethnic background, geographical origin, political perspective, philosophy, and outlook), and overwhelmingly friendly group of people. The six weeks whizzed by, sleepless and frenetic. There was so much to do, so many people to meet and talk to, that sleep seemed a triviality." Megan Moore, Hayward, CA

"The classroom atmosphere is so relaxed and comfortable. We laugh a lot, but there's almost always a heated debate going on, and the teachers and TAs are constantly pushing you to do more, to be more. Sure we learn equations and poetic meter and robotics, but it goes so much deeper. We learn our own self-worth." Maria Shapiro, Andover, MA

"One minute you may be arguing about color symbolism in The Great Gatsby; *the next you may be dancing about the quad playing kazoos. Summer programs balance fun and intellect."* Rebecca Nathenson, Menlo Park, CA

"My mentor, TAs, and others told me that college courses would entail similar projects and paper writing, so the tips I earned from experts in the field will undoubtedly be useful. I think I was able to get a feel for the patience, persistence, aggravation (sometimes!), and rewards involved in scientific research." Alice Lee, Cranston, RI

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More summer options than you ever knew existed:

- ***Books about Travel: A Read-about-It, Go-There Guide to America's Best Family Destinations*** (293 pp., $13.95), by Susan M. Knorr and Margaret Knorr. Order from Free Spirit Publishing, 400 First Avenue North, Suite 616, Minneapolis, MN 55401; (612) 338-2068.
- ***Directory of Student Science Training Programs for Precollege Students*** (61 pp., $3.00). Order from Science Service, Inc., 1719 N Street, NW, Washington, DC 20036.
- ***Educational Opportunity Guide: A Directory of Programs for the Gifted*** (240+ pp., $15.00), published by Duke University Talent Identification Program. Order from Duke TIP, Duke University, PO Box 90747, Durham, NC 27708-0747; (919) 683-1400; FAX (919) 683-1742.
- ***Program Opportunities for Academically Talented Students*** (100+ pp., $10.00), published by the Center for Talented Youth. Order from CTY Publications and Resources, The Johns Hopkins University, Baltimore, MD 21218; (410) 516-0245; FAX (410) 516-0804.
- ***Smart Vacations: The Traveler's Guide to Learning Adventures Abroad*** (318 pp., $14.95), Council on International Educational Exchange. Order from St. Martin's Press, 175 Fifth Avenue, New York, NY 10010.
- ***Summer On Campus: College Experiences for High School Students*** (392 pp., $9.95), published by the College Board. Available in bookstores or by order from The College Board, 45 Columbus Avenue, New York, NY 10023-6992.
- ***Summer Opportunities for Kids and Teenagers*** (980 pp., $24.95), [illegible] academics, arts, travel, camps, and [illegible] published by Peterson's Guides. Available [illegible] bookstores or by order from Peterson's, Box 2123, Princeton, NJ 08543-2[illegible]

The Coach's Corner

by Chengde Feng

Chengde Feng is an experienced math teacher who has coached students in the US and China in preparation for national mathematics competitions. We asked him to create a few problems for those of you who enjoy a good mathematical challenge. More problems by Mr. Feng will appear in future issues of *Imagine*, and the solutions to these problems will appear in the March/April issue.

1. Assume that you have five beads: one green (G), two white (W_1, W_2), and two black (B_1, B_2). One of the white beads weighs P grams and the other Q grams. One of the black beads weighs P grams and the other Q grams. Using your beam balance only twice, how can you determine the weights of each of the five beads without knowing whether the green bead weighs P or Q grams, if P is slightly greater than Q?

2. Find all the ordered pairs of positive integers (x,y) such that $\frac{1}{x} - \frac{1}{y} = \frac{1}{1994}$.

3. Let N=123456789101112131 4...979899, a 189-digit number where the degits are obtained by writing the integers 1 through 99 in order, and M=111...11, a 1994-digit number with 1 as each digit. Find the sum of the digits of P, where P=NxM. ■

Mr. Feng teaches mathematics at the Oklahoma School of Science and Mathematics (OSSM). He and his wife were both highly respected mathematics teachers and coaches in Tianjin, People's Republic of China, where they directed a branch of the Johns Hopkins Study of Mathematically Precocious Youth. Mr. Feng was member of the staff of SMPY at Johns Hopkins for one year before accepting his present position at OSSM.

AND FOR THOSE OF YOU WHO LIKE

VeRbal FuN . . .

Q: What is a "satyr"?

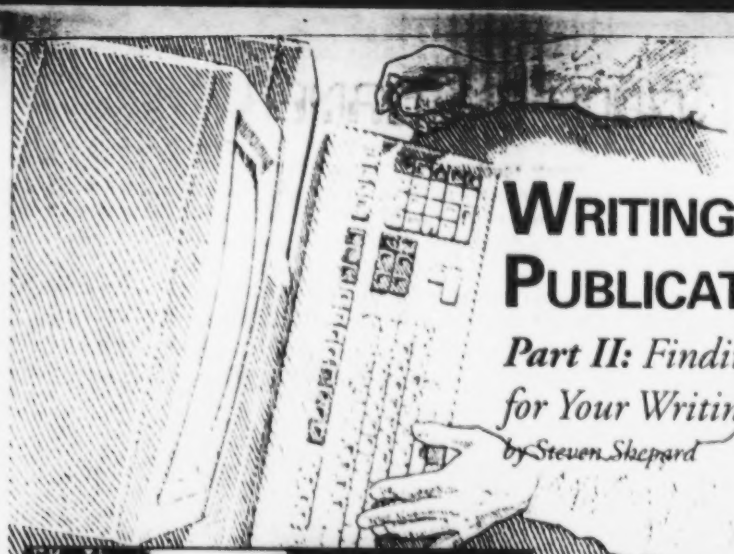
A: *A man with a goat where his trousers ought to be.*

If this doesn't sound to you like a Q & A from a typical American quiz show, you're right; it's from the British Broadcasting Corporation (BBC) radio quiz show, "My Word!" Each week, four regular contestants come up with creative word definitions and derivations, identify lines of poetry, and compose improbable explanations of how certain famous quotations came to be said. In one such explanation, for example, the Biblical adage "Many are called, but few are chosen" became "Many are cold, but few are frozen." In another, Thoreau's phrase "The mass of men lead lives of quiet desperation" reappeared as "The massive men need wives of quiet respiration." The show may be more fun than educational, but it can be both.

"My Word!" airs on many of the National Public Radio (NPR) affiliate stations throughout the United States. Check with your local NPR-affiliate. Broadcast times for some major cities and university towns are listed below:

Albany	WAMC	Wed, 8:05 pm	**Knoxville**	WUOT	Sun, 1:30 pm
Ann Arbor	WUOM	Sat, 12 noon	**Los Angeles**	KUSC	Sat, 9:00 pm
Atlanta	WABE	Thu, 6:30 pm	**New Orleans**	WWNO	Sun, 4:00 pm
Bloomington	WFIU	Sat, 11:00 am	**Omaha**	KIOS-FM	Sat, 4:30 pm
Boston	WBUR	Sun, 10:30 pm	**Philadelphia**	WHYY-FM	Wed, 11:30 pm
Cincinnati	WGUC-FM	Sun, 7:30 pm	**Portland, ME**	WMEA	Thu, 7:00 pm
Chicago	WFMT	Sun, 7:30 pm	**Raleigh-Durham**	WUNC-FM	Wed, 7:30 pm
Indianapolis	WICR	Sun, 6:00 pm	**Salt Lake City**	KBYU-FM	Sat, 4:30 pm
Iowa City	WSUI	Thu, 8:00 pm	**San Antonio**	KSTX	Sun, 4:00 pm
Jacksonville	WJCT-FM	Sun, 1:30 pm	**San Francisco**	KALW	Fri, 7:30 pm
Kansas City	KANU-FM	Sun, 10:30 am	**Washington, DC**	WETA-FM	Sun, 12 noon

"My Word!" is also carried by WFMT's (Chicago) Fine Arts Network, a cable network available in 235 cities and 35 states. Call (800) USA-WFMT for more information. ■



WRITING FOR PUBLICATION

Part II: Finding a Market for Your Writing

by Steven Shepard

Photo reproduced by permission of Landmark Editions, Inc.

Writing for Publication: Part I, Learning How to Write appeared in the November/December 1993 issue of *Imagine*, along with an article by Steven Shepard, who recounted his experiences with editors after winning the National Written and Illustrated By . . . Awards Contest for Students. In addition to *Fogbound*, his award-winning novel published by Landmark Editions, Steven's creative work has appeared in *Stone Soup*, *Creative Kids*, and *Young Voices* magazines. He is a 15-year-old freshman at Virginia's Thomas Jefferson High School for Science and Technology.

As a good writer who wants to be published, you must impress your editors before you'll have the chance to impress your readers. *And* you must do it in under two minutes.

Editors will take only two minutes to decide whether your story merits serious consideration. In that short time, you must introduce yourself, list your accomplishments, and briefly summarize your story.

It ain't easy.

Understand that the story on which you spent so much time won't be handed to an editor on a silver platter. Far from it. Your work will be buried in a stack of other submissions lovingly referred to as the "slush pile." Most pieces slide directly from slush to trash. But a good cover letter can save the day. A cover letter placed before your story tells an editor everything she needs to know in order to decide whether she should read your work. If your cover letter has done its job, she'll read on eagerly. If it hasn't, her eyes will glaze over, and the best you can hope for is a quick skim before your submission lands in the trash.

Good cover letters aren't the only way to help your story into print. You should also do some research at your local library. Look through a book like the *1994 Writer's Market* to find some magazines likely to be interested in your piece. Either check out some back issues of each magazine, or send away for them. Nearly every publication has some old issues they're happy to sell.

Once you've got a copy, read through it. Jot a few notes down. Be looking for important elements of the magazine's style:

Tone. Are the articles in this magazine funny or serious? Would they like a news story on the outcome of a local dirt-bike race, or would they publish a human-interest piece on a handicapped biker instead?

Format. Sidebars are small mini-articles beside the main piece. Does this magazine use sidebars, and should your story use them? How long are the articles?

Illustration. Are there photographs or artwork to accompany the articles? Can you provide illustrations for your own piece? Editors love an author who can supply these extras.

Content. What kind of stories does this magazine include? Would they want a fiction story about a young dirt-biker, or would they use the space to print a list of local dirt-bike races?

Audience. What [illegible] is this magazine designed for? Would they want a piece detailing modern variations of handle-bar grips or an article on learning to ride a bike?

Finally, consider how your story would fit in. What needs to be changed about it?

You'll find the answers to these and other questions just by taking the time to read through previous issues of the magazine. Even so, it's a good idea to send for a copy of the magazine's submission guidelines. Write a short note and mail it, along with an SASE*, to the magazine's submission editor, whose name you'll find inside the magazine. You'll receive a sheet full of important information.

It may be tempting to use only these guidelines and to skip looking through some back issues. Resist the craving, and do the work. There is no substitute for reading the actual publication.

Armed with both the guidelines and your notes on back issues, find the best magazine for your story, then tailor your piece to fit that publication's needs. Incidentally, if you decide to send your story to more than one magazine, you're obliged to tell the editors that it is a ***simultaneous submission.***

Most magazines are written by adults, the rare exception being children's magazines that publish stories ***by kids, for kids.*** Sometimes an adult-written magazine will provide a page for student writing, but to break out of that niche, you'll have to write like an adult.

You might even have to pass yourself off as an adult. A few magazines won't even read student submissions—they consider doing so a waste of time. If you have even an inkling that a publication may reject student authors out of hand, simply don't state your age. Let them treat your work as if it were an adult's.

Even if you follow all of these suggestions, most of your writing will be rejected—unfortunately, a fact of the writing life. Even Madeline L'Engle's *A Wrinkle in Time* was turned down 47(!) times. If your favorite story doesn't work for one magazine, send it to another. Read rejection letters carefully; they may provide valuable advice.

Don't let yourself be discouraged. Don't let an editor's two-minute judgment define you as a writer. And whatever you do, don't stop writing.

***SASEs and SASPs**

Self-addressed stamped envelopes and self-addressed stamped postcards are the best ways to assist an editor in responding to your submissions. All she needs to do is stuff a letter in the SASE or check a "NO" box on the SASP, then mail it off. By taking care of these little things for her, you increase the likelihood that you'll receive any response at all.

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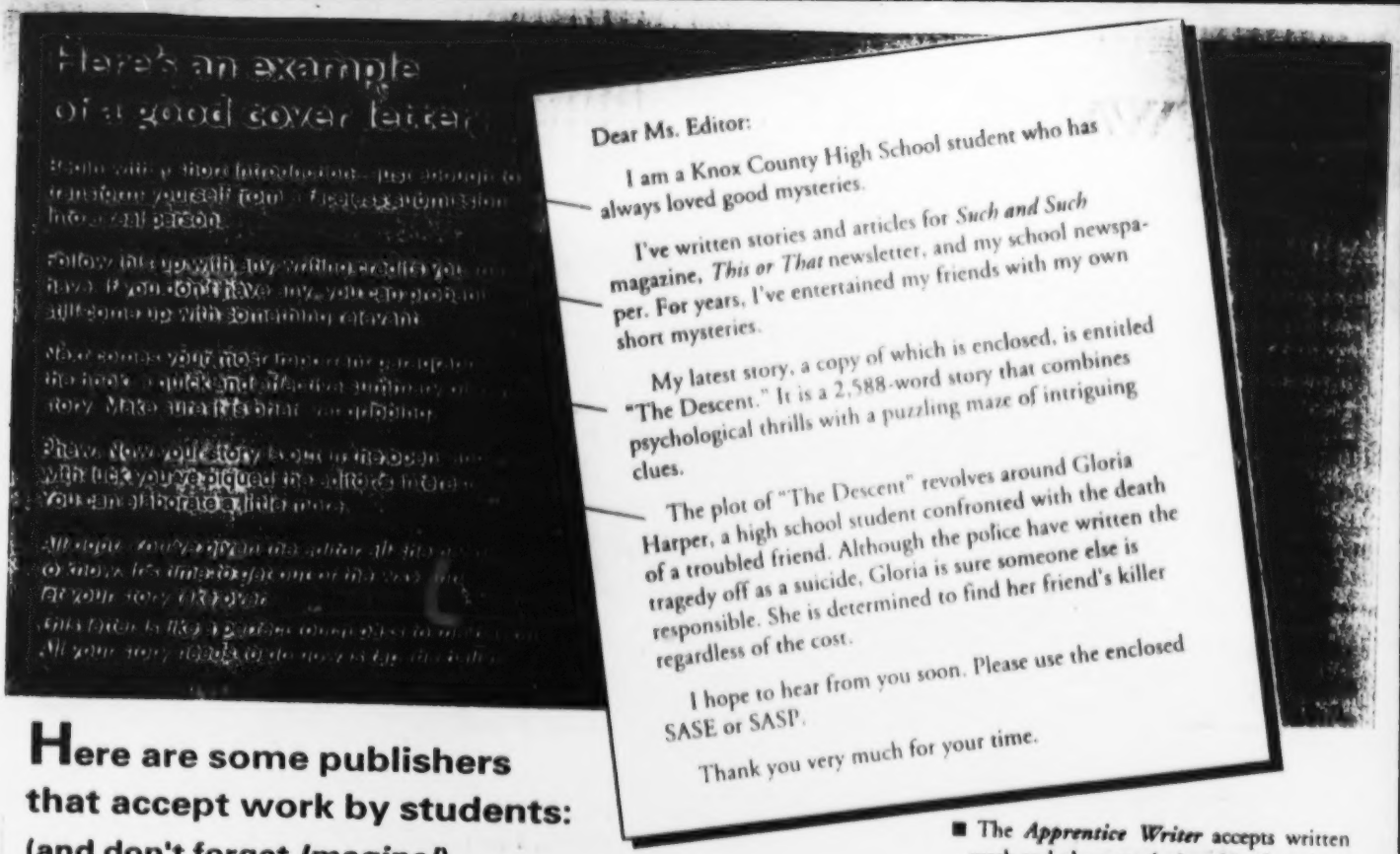
Here's an example
of a good cover letter.
Dear Ms. Editor:
I am a Knox County High School student who has always loved good mysteries.
I've written stories and articles for Such and Such magazine, This or That newsletter, and my school newspaper. For years, I've entertained my friends with my own short mysteries.
My latest story, a copy of which is enclosed, is entitled "The Descent." It is a 2,588-word story that combines psychological thrills with a puzzling maze of intriguing clues.
The plot of "The Descent" revolves around Gloria Harper, a high school student confronted with the death of a troubled friend. Although the police have written the tragedy off as a suicide, Gloria is sure someone else is responsible. She is determined to find her friend's killer regardless of the cost.
I hope to hear from you soon. Please use the enclosed SASE or SASP.
Thank you very much for your time.

Here are some publishers that accept work by students:

(and don't forget *Imagine!*)

- ***Stone Soup*** is a highly respected publication with a circulation of over 13,000. The magazine is filled entirely by student poems, stories, essays, and pictures. Authors whose work is accepted are paid $10.00. *Stone Soup Magazine, PO Box 83, Santa Cruz, CA 95063.*

- ***Merlyn's Pen: The National Magazine of Student Writing*** selectively publishes fiction, essays poems, and comments from students in junior high and the first two years of high school. All writers receive a detailed, personalized response within eleven weeks. Published authors receive three copies of the issue in which their work appears, plus a copy of *The Elements of Style*, by Strunk and White. *Merlyn's Pen, Inc., 98 Main Street, East Greenwich, RI 02818.*

- ***Creative Kids*** publishes *only* work from students in kindergarten through high school—cartoons, reviews, songs, articles, puzzles, photographs, comic strips, interviews, stories, art, games, editorials, poems, activities, and plays. Students receive a free copy when their work appears. *Creative Kids Magazine, PO Box 6448, Mobile, AL 36660.*

- ***Young Voices Magazine*** pays $5.00 for poems, essays, and stories by elementary through high school students. *Young Voices Magazine, PO Box 2321, Olympia, WA 98507.*

- ***Boodle Magazine*** publishes student writing and artwork from elementary school students. Those whose work are accepted receive two free copies. *Boodle Magazine, PO Box 1049, Portland, IN 47371.*

- ***WRITING! Magazine*** accepts student-written book reviews, questions for published adult authors, and quality articles by those in grades five and six. *General Learning Corporation, 60 Revere Drive, Northbrook, IL 60062.*

- The ***Children's Better Health Institute*** puts out six magazines for students in the elementary grades and includes student poems, drawings, jokes, and stories. *Children's Better Health Institute, PO Box 567, Indianapolis, IN 46206.*

- ***Landmark Editions*** annually sponsors a national contest for students in three age categories: 6-9, 10-13, 14-19. Entrants submit an illustrated book, 16-24 pages long, on any topic. Books are judged on originality and quality of writing and illustration. The three winners receive publishing contracts and royalties on the sale of their book. *National Written and Illustrated by . . . Contest, Landmark Editions, PO Box 4469, Kansas City, MO 64127.*

- ***Raintree Publishers*** sponsors an annual contest for students in grades four-six. The four winning stories are published in book form. *Raintree Publishers, 320 W. Wisconsin Avenue, Milwaukee, WI 53203.*

- The ***Apprentice Writer*** accepts written work and photography/graphics from high school students for this annual publication distributed to high schools and colleges throughout the Middle Atlantic States. The submission deadline is ***March 15, 1994.*** *Gary Fincke, Writing Program Director Susquehanna University, Selinsgrove, PA 17870-1001, (717) 372-4164.*

- ***The Concord Review: A Quarterly Review of Essays by Students of History*** encourages high school history students to submit papers on historical topics of national and international interest. Essays must reflect careful research and high standards of scholarship, use primary sources when possible, and include thoughtful in-depth discussion. They should be about four thousand words in length, have endnotes, and must be printed from a word processor or submitted on a Macintosh disk. *Will Fitzhugh, Editor, The Concord Review, PO Box 661, Concord, MA 01742, (508) 443-0022.*

The discipline of writing for publication promotes creative thinking and hones communication skills. Such effort will never be wasted, even if you don't find that perfect match with a publisher. If you are successful, you'll be thrilled to see your name and words on the printed page. And someday you might even be paid. ■

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Outward and Visible Signs

by Amanda Bell

Student writers featured in this issue of *Imagine* have all been creative in finding specialized venues for their work. You will notice that this story, the article on pages 3-4, and the poem on page 20 first appeared in publications other than those mentioned in Steven Shepard's list. So remember to use your imagination when looking for a publisher for your own work.

Amanda Bell wrote "Outward and Visible Signs" while taking Introduction to Writing, taught by Gregory L. Lichtenberg at CTY's summer '92 program at Skidmore College in Saratoga Springs, New York. Amanda is now 16 and in tenth grade at Ridgewood High School in Ridgewood, New Jersey. She is on the staff of her school's literary magazine and is active in a community service group and her church.

"Shut up, shut up! Just make her shut up!" Chris whispered. I tried to ignore Chris, but I couldn't help speeding up my words and nervously twirling my split ends. "John the Baptist was the prophet that came before Jesus, andhewentaroundIsraelbaptizingpeople."

"Shut up!"

Mr. Smythe, our oozing confirmation instructor, kept smirking and nodding, expecting me to go on, disregarding Chris's nauseating behavior.

Later, while we were waiting for that Sunday's dismissal bell to ring at eleven, Mr. Smythe showed Chris how to make an improved paper airplane out of the Morning Prayer booklet, while we three girls picked at the pills on our stockings.

Later that year, we were all slouched in confirmation class again, waiting for the latest of a string of instructors to show up, when Mrs. Phipps poked her head in the door of our classroom and asked where Mr. Wilkie was. The four of us just stared back, until Heather said we hadn't even seen him. Mrs. Phipps left, and we were quiet once again while Chris made a paper airplane out of the Oxford Press's "Music for the Eucharist." I was thinking it was a good thing we weren't Catholic or Jewish, or we'd have this confirmation thing several times a week, instead of just during the Sunday service.

Then Ashley wandered in. Ashley—actually, Reverend Neal—is our curate at St. Elizabeth's. She was still wearing her vestments, and she carried a tape player, tapes, and something like a Kleenex box, with wine-colored birds on it. She sat down in the chair reserved for the instructor, smiled nervously, and said, "Mr. Wilkie is nowhere to be found, so I'm going to give you this kind of silly little sermon I gave the little kids this morning." She giggled a little. Chris rolled his eyes.

She popped a tape into the player. "Now close your eyes and listen."

We heard bird calls, rivers of them, the song we learned to call the Dawn Chorus in *The Lion, the Witch, and the Wardrobe.*

Click.

"Now open your eyes. What was it you heard?" Her voice had become level and quiet.

"Birds."

"Bird songs."

"Okay, very good. Now close them again."

It was wolves, crying way out in the night. The sound was cold, clear, and bittersweet, rumbling from the distance. We opened our eyes without being told.

"Whales."

"The next one's different. Guess what it is while you listen." She was right. It was a strange series of whisperings, wailings, squeakings, and ripplings. When we opened our eyes, we were profoundly puzzled, and Ashley was smiling broadly. I guessed the noises were made underwater. Heather said it was a submarine, Liz shrugged, and Chris glowered.

"It's a mama dolphin calling to her baby underwater," Ashley explained. Heather, Liz, and I awed; Chris sagged. Ashley told us she thinks animals can speak to each other. She related how her dogs seem to tell each other it's dinner time in the kitchen or walk time on a summer evening. Then Ashley described an essay she'd read by Annie Dillard, about a man who tried to teach a little stone to talk.

"Every day, he'd take off the little piece of felt that it lived under, and he'd give it its...er... lesson." We all laughed. "But I wonder if, maybe, that stone is already talking—and we just don't hear it. And maybe that's how God speaks—through silence—and we just don't know how to listen."

We were all silent then, and I don't know that I heard God, but I had that light, cool feeling at the back of my neck, the one you get when someone gives you a present or says, "I love you."

Ashley picked the bird box up off the floor. She took out a rounded clear stone and passed the box to Heather.

"You may each take one," she said. "I gave these to the little kids, too."

She held her stone up to the light as I chose from the box. All the stones were clear, but clouded in the center. A few were tinged with pink. Finally, I chose a chestnut-shaped one that fit in the palm of my hand. I passed the box to Chris.

"It has a little dirt in the middle," mused Ashley. "Flawed. Sort of like the way we come before God."

On the Wednesday before our confirmation, we met with Walter Righter, our rector, and Ashley in the church parlor. Rev. Righter cautioned us that if we took our confirmation vows on Sunday but weren't really sure if we meant them, or didn't mean them at all, we would be lying. To everyone. We were quiet, thinking of the relatives who were to come watch, the parties and presents that were to be given, the new dresses that were to be worn. I thought, "There is such a thing as a white lie." But then I wondered, since Ashley's sermon in the spring, had come to see confirmation as something special, worthwhile, not just the end of having to go to Sunday School.

Ashley drove me home that evening. On the way, I asked her what she had done before she was a priest. What I really wanted to know was *why* she became a priest.

She told me she'd been a broker handling million-dollar loans in New York City. After years on the job, she started to wonder where all that money went. Did they make anything with it? Build anything with it? Or was everyone just on a sort of financial hamster wheel? And what about the loans the bank occasionally made to South Africa? Those questions were the beginning of her transition into the priesthood.

• • •

On the morning of my confirmation, I slipped that small, clear stone into a little plastic bag and pinned it to the label of my chalky blue dress. ■

A version of this essay appeared in the June 1993 issue of *The VOICE*, the official periodical of the Episcopal Diocese of Newark, New Jersey. Reprinted with permission.

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The New SAT:
What Will it Mean for You?

When the College Board announced coming changes in the SAT's format, rumors started to fly: calculators would be allowed; essays would be required; the entire test would be longer—or shorter. With so much conjecture in the air, it's been difficult to know what to expect from the new SAT, much less how to prepare for it. But information available from the College Board provides some answers to the questions students most commonly ask.

Why have they made these changes?

Donald Stewart, the president of the College Board, says they are simply part of the "ongoing evolution of the admissions testing program," which has undergone many content and format changes since 1926 when it was first administered.

In 1988, the College Board authorized the development of a new test to evaluate more accurately the kinds of skills needed by college students. Consequently, the new SAT emphasizes critical reading skills more than vocabulary in the verbal section and reasoning abilities more than computation in the math.

Why have they changed the name?

The SAT's new name matches its new format; the "A" now stands for *Assessment*, rather than *Aptitude*. Stewart hopes that renaming the test will "correct the impression among some people that the SAT is a measure of something innate or impervious to change, regardless of effort or instruction." Relating a student's SAT scores to the difficulty of courses taken in high school, Stewart emphasizes that "the SAT reflects and rewards rigorous academic effort." To underscore this link, the SAT is now called *SAT I: Reasoning Test*, and the Achievement tests are now *SAT II: Subject Tests*.

How long will the new test be?

The Test of Standard Written English (TSWE) has been eliminated, so you will have more time to work on SAT I's math and verbal portions.

Instead of 60 minutes for 85 verbal questions, you have 75 minutes for 75 to 85 questions. The math section still includes 60 questions, but allows 75 minutes, instead of 60, for answers.

Time has been extended to help reduce student anxiety, although the conviction of many students that *just a little more time* would have raised their scores dramatically is not supported by the College Board's research.

Will calculators be allowed?

The College Board now ***recommends, but does not require,*** the use of a four-function, scientific, or graphing calculator on the math SAT I. Studies found that students who used calculators performed slightly better on the test than those who did not. But, while calculators do make certain problems easier to solve, they can make others even harder.

If a question asks you to conceptualize a given ratio and then solve it, a calculator can prevent computational errors. But if a question asks for an answer in radical form, a calculator that gives only decimal answers increases the likelihood of error. So you need to evaluate how best to solve each problem.

Will all of the math questions be open-ended?

Out of sixty questions on the new math SAT I, only ten will require you to arrive at your own answers.

The College Board admits that ideally students should solve nothing but open-ended math problems, and solutions should be evaluated for quality as well as correctness. However, with more than 1.8 million test takers a year, open-ended testing is just not feasible.

Instead, the College Board has developed a machine-gradable grid that accommodates all possible solutions: any positive number from 0 to 9999, including decimals and fractions. If the answer to a problem is .25, fractions such as 1/4, 2/8, or 1/16 are also correct. Or if the question asks for "the fraction $x/7$ [that] is greater than 2 and less than three," you may choose any possible number that replaces x. Only the answers, not the work that led to them, will be evaluated.

In trial tests, a few students made an error entering answers on the grid, but very few made more than one. The only answers students found consistently troublesome to grid involved repeating decimals. Currently, the SAT requires that answers be expressed to as many places as the grid allows: .666 and .667 would both be correct, but .66 and .67 would not. However, upcoming changes *may* require that all repeating decimals be expressed as fractions. So, before you take the test, be sure you understand what kinds of answers are acceptable.

How has the verbal section changed?

The antonym questions are gone. The test now relies on analogies to test verbal reasoning skills and on sentence completions to test vocabulary. There are many more reading comprehension questions: some require you to compare two separate passages on a related topic; others ask you to determine what a word means in context or to contrast one author's use of a word with another's. Such questions, the College Board argues, come much closer to the reasoning required of college students.

The verbal SAT I still does not include an essay. However, an essay is part of the new SAT II: Writing Subject Test, which has replaced the TSWE in measuring your command of written English. If you choose to take this test, you will have forty minutes to answer forty multiple-choice questions about English usage and twenty minutes to write an essay.

The new PSAT has adopted the format of the SAT I, so taking the PSAT in your junior year should give you the exposure you need. All SAT I bulletins contain a sample test for practice. But the best preparation for the new SAT is still those old standbys: study challenging subjects and read widely. ■

For more information about SAT I or SAT II:
Brad Quin
College Board
45 Columbus Avenue
New York, NY 10023-6992
(212) 713-8000

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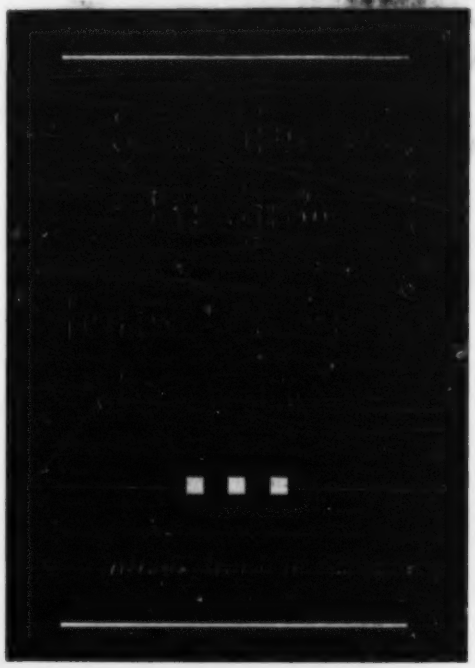
This on-going series is intended to aid prospective college students in their search by offering insiders' views of selected colleges and universities, as expressed by current undergraduates or recent graduates who have exceptionally high academic ability. These students share a general bias in judging undergraduate education: they all have high expectations for a college or university's academic standards, its institutional and instructional flexibility, and its respect for nurturance of emerging talent. In this issue, we focus on The Johns Hopkins University (JHU).

Note that the number of student reviewers is small. Consider their personal perspectives as only one component while you gather factual information and impressions from such other sources as college catalogs, site visits, talks with officials and students on campus, and the advice of your guidance counselor and teachers.



Our reviewers include thirteen students, who major(ed) in biology (2), biomedical engineering (3), economics (2), electrical engineering (2), English (1), environmental engineering (1), international relations (1), materials science & engineering (1), math (1), music (1), physics (1), psychology (1), and writing seminars (1). (The number of majors exceeds thirteen because several students have double majors.) Students' comments appear within quotation marks.

Reviewers gave high praise to the caliber of the faculty and the education Hopkins delivers. They noted that individual attention is available to students who assertively seek out professors.

"Excellent. Academically, JHU was tops for preparing students to think critically, study efficiently, and balance time. Additionally, the level of material presented in courses was very high—I was much more than adequately prepared for medical school."

"The instructors are of the highest caliber and are usually fairly accessible, especially in the upper level courses. An undergrad at Hopkins can take advantage of world-renowned graduate faculty in such departments as Writing Seminars, English, History, and Political Science. You have to show an avid interest, though.fa

"The absence of a core curriculum really emphasizes the Hopkins method of self-motivated instruction. In some humanities majors, you can choose most of your own classes and focus on what you want."

"It really depends on your department. I have had some wonderful experiences with profs in the Psych Department being helpful and accessible, but my engineer friends have not. Also, as an undergrad, you must be very outgoing with your profs; this is, after all, a very research-oriented school, and undergrads are not noticed unless they make themselves noticed."

"It varies. Obviously, in intro-level courses, individual help is harder to find. It seems that the students who do well are the ones who can learn on their own."

A running joke on campus is that Hopkins was recently ranked 297 out of 300 on a survey of the quality of social life at America's largest coed universities. (FYI: This admittedly unscientific poll was conducted by a group of students from Boston-area colleges. For comparison, the #1 ranked school was Florida State, Harvard was #122, and Yale was #290. The survey was published in the magazine, *Inside Edge*.) Although most of our reviewers reported that they are content with their own social lives, the prevailing response was that the overall social life at Hopkins is limited. The student housing is one factor: for the first two years, students live in dorms on campus; for the last two years, everyone lives off-campus. Despite their criticisms, all reviewers reported having made very good friends at Hopkins, and several commented that Baltimore has much to offer as a cultural resource.

"It's what you make it. Since JHU is small, one can become involved in several activities, and there are many opportunities to start new ones. If you want to have fun, there's a lot of it, but no one is knocking on your door asking you to go out. I have loads of fun here."

"As a whole, the social scene at JHU is not dominated by any one kind of social group or activity—frats, sports, or clubs. This is both good and bad. It's good in that no one feels pressured to join a particular club or activity. It's bad in that the majority of students, who are not involved in such activities, are left to find their own fun on weekends without much structure to fall back on. JHU is certainly not a 'party school.' Upperclass social life revolves around the off-campus housing, as people come together and develop relationships that stem from the 'post-dorm' experience of living on your own. This creates a nucleus of friends and acquaintances who form your social circle at JHU."

"Very good: find friends with whom you share interests and you're set. Baltimore has an excellent arts/music scene."

"I've liked my stay here, but I know a lot of people who are unhappy here. The best way to meet people is to join clubs you're interested in—be active!"

"The social life at Hopkins is totally lacking in student enthusiasm. I blame this on the students themselves. Most Hopkins students spend too much time locked in their rooms, studying."

"The morale here is low—there is no student spirit, partly because juniors and seniors disappear into apartments off campus."

"I think there is a kind of self-selection process at work in creating the Hopkins student body (and social life). People who come here know Hopkins' reputation for having an awful social life, but they choose to come anyway. The majority of Hopkins students don't consider social life to be a very high priority in choosing a college; and once they get here, their lack of involvement in extracurricular activities is part of why the cycle continues."

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The excellent academics and opportunities for research, the small size, and the friends reviewers have made were cited most often. Several also wrote that they really enjoy the highly competitive atmosphere of Hopkins.

"Excellent academics, diverse students (in all aspects), and a small liberal arts college atmosphere at a major university made Hopkins a great experience."

"Lots of opportunities to do research with outstanding people in their fields. If you are aggressive about it, you can really do a lot and get invaluable help and advice as you formulate your future plans."

"I enjoy the smallness of the school, and I like the pressure here—I thrive on it. I especially enjoy Peabody Conservatory—I love my classes there."

"The people I've met and the friends I've made. The research/volunteer opportunities at the Medical School are impressive."

"The competitive atmosphere and the high standards imposed by professors and retained by most students."

The highly competitive and goal-oriented atmosphere also has a dark side, and this was the feature most often cited in response to this question.

"The attitude that many students have seems to be extremely—sometimes overly—competitive. Learning is often sacrificed for opportunities to out-do one's classmates. Often, instead of collaborating, students are pitted against each other to see who survives. The competitive atmosphere can turn cut-throat, especially in pre-med and engineering courses (especially in the labs)."

"The heavy pre-professional focus of the students, most people are here to go on to further education. Many people are very concerned with building their résumés."

"I feel that if you weren't highly focused before starting college, JHU would make it worse! It seemed like only students who really knew what they wanted succeeded at JHU."

Reviewers agree that, while many kinds of people find a niche at Hopkins, the student most compatible with the academic and social demands of the place is one who can handle stress and a heavy workload and is "focused on academic goals and does not need a great social life."

The Johns Hopkins University

Baltimore, MD 21218
(410) 516-8171

- 4-year private coed university
- Campus lies between urban and suburban neighborhoods in Baltimore.
- Semester system, January intersession.
- Full-time undergraduate enrollment 1993-94: 2,123 men; 1,255 women.
- Special features: Space Telescope Science Institute; Applied Physics Lab; associated schools include Peabody Conservatory, School of Advanced International Study (SAIS), School of Medicine, and School of Public Health.

"Someone who is strongly academically motivated, does not give up in tough situations, can deal with a certain level of peer pressure, has a good sense of humor about his/her shortcomings, and does not need regular sleep. Being a born prodigy would help...."

"Someone who is motivated, future-oriented, and dedicated."

"A cosmopolitan, independent, city-loving person who does not need to be pampered. Someone who knows what they want out of their education and can go after it. Someone who handles stress well and can perform under pressure. No naive, faint-hearted introverts should come here."

"We have all kinds of people here, and in the end, everyone finds his/her niche. In general, you need to be very driven, and you have to be socially creative—to create a sociable and fun life out of very limited resources."

The votes were mixed. Five reviewers said yes, four said no, and the remainder had mixed feelings.

"Absolutely! I had the chance to study something in which I was really interested, to meet fascinating, driven, motivated people, and to explore my personal interests."

"Yes. Despite all the bickering about the social scene and the cost of the tuition, I still had a wonderful time at Hopkins, making some good friends and learning some things along the way."

"Not necessarily. I made my decision based on a very limited set of criteria. If I had taken into account cultural opportunities, social life, environment, and other factors that really are integral parts of your college experience, I might have gone elsewhere. But I have learned a lot while here and have met some great people."

"Probably not. When I started college, I did not know what I wanted to do with my life. JHU does not provide you with good opportunities to explore different fields; rather, it serves as a stepping stone for people who know precisely what they want to do as they proceed to grad school. I was just not focused enough to take best advantage of JHU."

"No. I'd choose a school of the same academic caliber, but with a larger undergraduate student body and more on-campus activities."

As you try to find the college or university best suited to you, the views of Johns Hopkins presented above may be helpful. Keep in mind that these students might have had similar positive or negative experiences had they attended a different university. At any college, it is important for the individual student to seek out challenging academic experiences and the best professors and to create a social life that best fits his or her personal style.

Note: The students quoted in the College Review Series are expressing their own views, which are not necessarily those of JHU or CTY. ■

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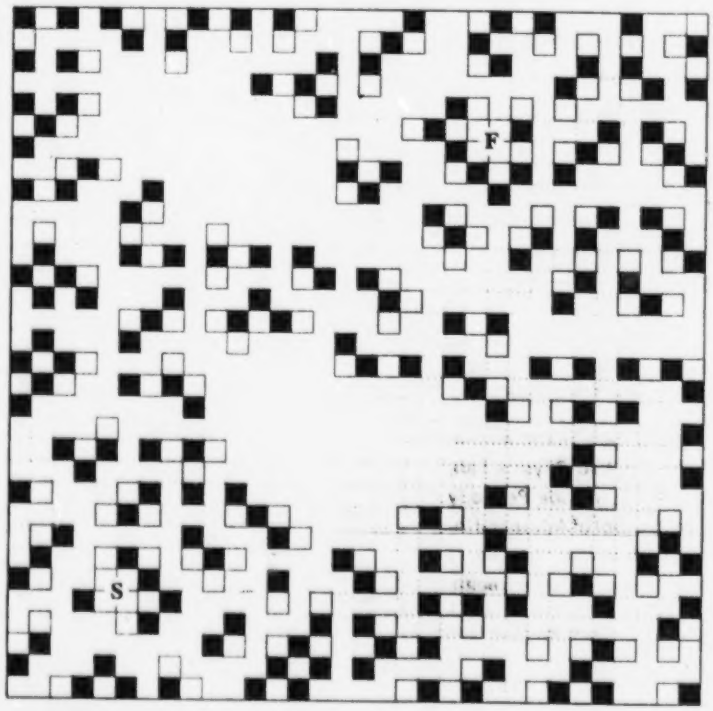
CREATIVE MINDS ImaGiNe...

Submit your creative work—poems, brain teasers, short stories/essays/book reviews. We look forward to hearing from you. Please write to Imagine • SET at CTY • The Johns Hopkins University • Baltimore, MD 21218

ANOTHER PUZZLE *by Tom Boester*



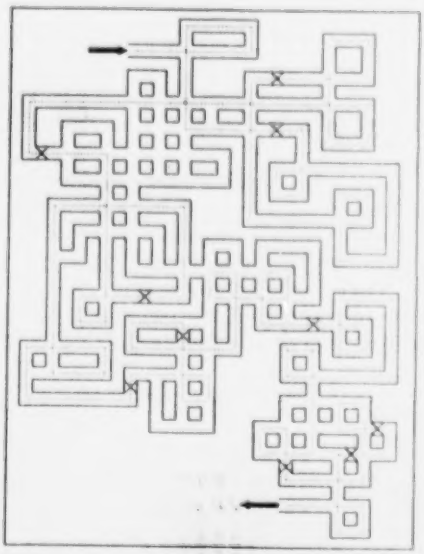
DIRECTIONS:

This puzzle is like an oversized chess board from which many of the squares have been removed. Moving like a chess knight, go from one of the four squares marked S to one of the four squares marked F. You can only land on squares that have not been removed. (You can jump over missing squares, but you can't land on them).

Fascinated by mazes and puzzles, **Tim Boester** is also intrigued by roller coaster design. Tim plans to study physics and math when he enters college next fall.

Solution to Puzzle in Nov./Dec. issue of *Imagine*:

This puzzle does not have a unique solution. You must go through the last seven Xs in the order shown; there is, however, more than one way to go through the first three Xs. The solution path crosses itself in many places; to follow it, go straight whenever the path crosses itself.



O CRT!

O CRT!
Thou art so clear
and so fair.
Thou hast many Windows™ into thy soul.
And thou DOS shine beneath them.

O CRT!
Though thy radiation doth pain me
Mine eyes stay faithful
and do fry for thee.
'Tis fatal love,
For thee,
And thy cousin TV.

O CRT!
Thy angles so perfect
and orderly.
And in 6 million colors,
how thy pixels do shine!

O CRT!
From the moment thou wast born,
Thine pixels
Were like crystals;
Thy transistors
Like so many beauteous sisters.

O CRT!
I shall never return thee!

O CRT!
Let me stroke thy exquisite NEC,
Caress thy rounded knobs,
My graphic fantasies fulfilled!

O CRT!
Let me reach inside,
and void thy warranty!

No?

Thou dost not want to turn me on?

O CRT!
Please, 'twill do no harm.
Still thou sayst no?!

Then, I shall . . .
I shall . . .
Shut you . . .

Off!

CLICK

Carl Takei is an 8th grader at Sutter Middle School in Sacramento, California, and was recently elected Sutter's student body vice-president. He enjoys roller-blading, writing, martial arts, computer programming, and twirling the knobs on his monitor. His poem is reprinted with permission from *Sacra Blue*, a magazine for computer users in the Sacramento area.